

IN THE SPECIFICATION

Please amend the specification as follows:

Please amend the title as follows:

--Toroidal Type Toroidal Continuously Variable Transmission and Method for Producing Torque Transmitting Member Thereof--

On page 1, lines 4-5, please amend this paragraph with the following:

--This invention relates to a toroidal type toroidal continuously variable transmission and a method for producing torque a transmitting member thereof.--

On page 1, lines 6-14, please amend this paragraph with the following:

--In a toroidal type toroidal continuously variable transmission for an automotive vehicle etc., a plurality of rollers are rotatably sandwiched between raceway portions of an input disc and an out put disc opposing to--each other by a predetermined force. Such a toroidal type toroidal continuously variable transmission transmits torque between the discs by a traction force between the circumference of the roller and each raceway portion of the disc. This toroidal type toroidal continuously variable transmission can increase and decrease the number of the revolution revolutions of the output disc against the input disc (transmission ratio) by adjusting the position of the roller with respect to each disc.--

On page 1, lines 15-20, please amend this paragraph with the following:

--In the toroidal type toroidal continuously variable transmission, each of rolling contact portions of the input disc, the output disc and the rollers, which are torque transmitting members, is suffered to suffers high temperatures and high surface pressure in operation. For this reason, not only a black structure caused by conventional fatigue but also a white structure causing white layer flaking is occurred at the rolling contact portions. This

causes a problem that its life is shortened. Some technologies trying to solve such a problem are known as follows:--

On page 3, lines 4-6, please amend this paragraph with the following:

--It is an object to provide a ~~toroidal type~~ toroidal continuously variable transmission and a method for producing a torque transmitting member thereof capable of long life at low cost.--

On page 3, lines 8-21, please amend this paragraph with the following:

--A ~~toroidal type~~ toroidal continuously variable transmission according to the present invention comprises an input disc having a concavely curved raceway portion in one side, an output disc having a concavely curved raceway portion opposing to the raceway portion of the input disc in one side, and a roller rotatably sandwiched between the raceway portions of the discs for transmitting torque between the discs by a traction force between the circumference of the roller and the raceway portion of each of the discs, wherein, at least the rolling contact portion of at least one transmitting member of the input disc, the out put disc and the roller is formed of a bearing steel which contains: C: 0.8-1.5 wt %; Si: 0.5-2.5 wt %; Mn: 0.3-2.0 wt %; Cr: 1.9-2.5 wt %; Mo: 0.3-1.0 wt %; and a total of 1.0 wt % or more of Si and Mo; with the balance being iron and unavoidable impurities; wherein, a residual austenite in a range of depth $Z = 1.0L$, where L is the major axis of a contact ellipse of the traction contact portion, from the surface of the rolling contact portion is 15 wt % or less, and the hardness of the range is HRC 58-62.--

On page 3, please amend the paragraph beginning on line 22 and ending on page 4, line 6 with the following:

--In the ~~toroidal type~~ toroidal continuously variable transmission mentioned above, since the residual austenite in the range of depth $Z = 1.0L$ from the surface of the rolling contact portion formed of the bearing steel is 15 wt % or less, and the hardness of the range is HRC 58-62, this can reduce the occurrence of a white structure, which is a factor of a short

life. Thus, a long-life ~~toroidal type~~ toroidal continuously variable transmission can be obtained at low cost. The inventors of the present invention found that adjusting the amount of residual austenite and the hardness of the predetermined depth from the surface of the rolling contact portion formed of the bearing steel can reduce the occurrence of a white structure based on their studies, and accomplished this invention.--

On page 4, please amend the paragraph beginning on line 14 and ending on page 5, line 3 with the following:

--Another ~~toroidal type~~ toroidal continuously variable transmission according to the present invention comprises an input disc having a concavely curved raceway portion in one side, an output disc having a concavely curved raceway portion opposing to the raceway portion of the input disc in one side, and a roller rotatably sandwiched between the raceway portions of the discs for transmitting torque between the discs by a traction force between the circumference of the roller and the raceway portion of each of the discs, wherein, at least a rolling contact portion of at least one transmitting member of the input disc, the out put disc and the roller is formed of a bearing steel which contains C: 0.8-1.5 wt %; Si: 0.5-2.5 wt %; Mn: 0.3-2.0 wt %; Cr: 1.9-2.5 wt %; Mo: 0.3-1.0 wt %; and a total of 1.0 wt % or more of Si and Mo; with the balance being iron and unavoidable impurities; wherein, a residual austenite in a range of depth $Z = 1.0L$, where L is the major axis of a contact ellipse of the traction contact portion, from the surface of the rolling contact portion is 7-13 wt %, and the hardness of the range is HRC 59-61, and an oxide particle size in the range is 14-19 μm .--

On page 5, lines 4-10, please amend this paragraph with the following:

--In such a ~~toroidal type~~ toroidal continuously variable transmission, since the residual austenite in the range of depth $Z = 1.0L$ from the surface of the rolling contact portion formed of the bearing steel is 7-13 wt %, and the hardness of the range is HRC 59-61, and an oxide particle size in the range is 14-19 μm , this can reduce the occurrence of a white structure, which is a factor of a short life. Thus, a long-life ~~toroidal type~~ toroidal continuously variable transmission can be obtained at low cost.--

On page 5, lines 18-22, please amend this paragraph with the following:

--In both of the ~~toroidal type-toroidal~~ continuously variable transmissions mentioned above, the whole of the input disc, the whole of the output disc, and the whole of the roller can be formed of the bearing steel, and the ~~toroidal type-toroidal~~ continuously variable transmission is a ~~full toroidal type full-toroidal~~. In this case, a long-life ~~full toroidal type full-toroidal~~ continuously variable transmission can be obtained at low cost.--

On page 6, lines 9-10, please amend this paragraph with the following:

--Fig. 1 is a schematic diagram showing a ~~toroidal type-toroidal~~ continuously variable according to the present invention.--

On page 6, please amend the paragraph beginning on line 18 and ending on page 7, line 2 with the following:

--Fig. 1 is a schematic diagram showing a ~~full toroidal type full-toroidal~~ continuously variable transmission as an embodiment of a ~~toroidal type-toroidal~~ continuously variable transmission according to the present invention. A variator 1 as the principal part of the ~~toroidal type-toroidal~~ continuously variable transmission has an input shaft 3 to which rotational power is transmitted from an output shaft of an engine (not shown). Input discs 4 as torque transmitting members are arranged at positions in proximity to both ends of the input shaft 3 by spline coupling so as to be rotatable as one-piece. A concavely curved raceway portion 4a is formed in one side of each input disc 4. Further, holding rings 5 fitted to the input shaft 3 hold the input discs 4 in directions that they move away from each other.-

On page 9, please amend the paragraph beginning on line 23 and ending on page 10, line 6 with the following:

--In the ~~toroidal type-toroidal~~ continuously variable transmission mentioned above, the input disc 4, the output disc 7, and each roller 13 are formed of bearing steel for semi-high temperature,

respectively. This bearing steel contains C: 0.8-1.5 wt %; Si: 0.5-2.5 wt %; Mn: 0.3-2.0 wt %; Cr: 1.9-2.5 wt %; Mo: 0.3-1.0 wt %; and more preferably C: 0.9-1.05 wt %; Si: 0.9-1.1 wt %; Mn: 0.4-0.5 wt %; Cr: 1.9-2.5 wt %; Mo: 0.4-0.5 wt %; and a total of 1.0 wt % or more of Si and Mo; with the balance being iron and unavoidable impurities. The reason that the bearing steel for semi-high temperatures contains the contents with the above range of materials is described as follows:--

On page 12, lines 2-12, please amend this paragraph with the following:

--Namely, the bearing steel is used under the condition after quenching and tempering, and the metal structure thereof is a mixed structure of martensite, a residual austenite and a sphere of carbide. When this material is used, the volume fraction of the residual austenite at the time of the completion of quenching and tempering is about 12%-19%. Generally, it is known that some amount of residual austenite improve a rolling fatigue life. However, regarding a ~~toroidal type~~ toroidal continuously variable transmission, in the rolling member used under a high surface pressure condition, a residual austenite can be a source of a local structural change. This accelerates the occurrence of a white layer. For this reason, it is preferable that the residual austenite is 15 wt % or less, and more preferably 7-13 wt %.—

On page 17, please amend the paragraph beginning on line 10 and ending on page 18 with the following:

--In the embodiment, the whole of the input disc 4, the out put disc 7 and the rollers 13 are formed of the bearing steel for semi-high temperature, respectively. However, only the raceway portion 4a, 7a of each of the discs 4, 7 and the circumference portion 13a of the roller 13, which are rolling contact portions, can be formed of the bearing steel for semi-high temperature, respectively. Additionally, at least one rolling contact portion of the raceway portions 4a, 7a and the circumference portion 13a can be formed of the bearing steel for semi-high temperature, in which the residual austenite in the range of depth $Z = 1.0L$ from

the surface of the rolling contact portion is 15 wt % or less, more preferably 7-13 wt %, and the hardness in the range is HRC 58-62, more preferably HRC 59-61. Further, at least one roller 13, which is subjected to relatively higher load among the plurality of rollers, can be formed of the bearing steel for semi-high temperature. Moreover, although the ~~toroidal type~~ toroidal continuously variable according to the above embodiment is described as a ~~full-toroidal type~~ full-toroidal continuously variable transmission, it should be appreciated that the ~~toroidal type~~ toroidal continuously variable according to the present invention can be applied to other ~~toroidal type~~ toroidal continuously variable ~~transmission~~ transmissions--